REMARKS

Claims 18-20 are rejected under 35 U.S.C. § 112, second paragraph, as being indefinite. Claim 18 is amended above in a manner believed to overcome the rejection. Entry of the amendment to claim 18 and removal of the rejection of claims 18-20 are respectfully requested.

Claims 1-20 are rejected under 35 U.S.C. 102(e) as being anticipated by Miyazaki (United States Publication No. 2002/0154080). In view of the amendments to the claims and the following remarks, it is believed that the amended claims are allowable over the cited references.

In the present invention as claimed in claims 1-9 and claims 10-17, a liquid crystal display driver includes a first switch for connecting one end of a second capacitor in a first position of the first switch to a first output terminal and in a second position of the first switch to a fifth output terminal in response to a driving polarity signal. The liquid crystal display driver further includes a second switch for connecting the other end of the second capacitor in a first position of the second switch to a second output terminal and in a second position of the second switch to a ground voltage in response to the driving polarity signal. In addition, a third switch connects one end of a third capacitor in a first position of the third switch to the second output terminal and in a second position of the third switch to a fourth output terminal in response to the driving polarity signal. Further, a fourth switch connects the other end of the third capacitor in a first position of the fourth switch to a third output terminal and in a second position of the fourth switch to the fifth output terminal in response to the driving polarity signal.

In the present invention as claimed in claims 18-20, a method stabilizing driving voltage levels in a liquid crystal display driver includes, when a driving polarity signal is in a first logic state, connecting one end of a second capacitor to a fifth output terminal by a first switch in a first position of the first switch, connecting the other end of the second capacitor to a ground voltage by a second switch in a first position of the second switch, connecting one end of a third capacitor to a fourth output terminal by a third switch in a first position of the third switch, and connecting the other end of the third capacitor to a fifth output terminal by a fourth switch in a first position of the third switch. When the driving polarity signal is in a second logic state, the method includes connecting one end of the second capacitor to the first output terminal by the first switch in a second position of the first switch, connecting the other end of the second

capacitor to the second output terminal by the second switch in a second position of the second switch, connecting one end of the third capacitor to the second output terminal by the third switch in a second position of the third switch, and connecting the other end of the third capacitor to the third output terminal by the fourth switch in a second position of the fourth switch.

Miyazaki discloses in FIG. 8 a switch SW3 for connecting one end of a capacitor C4 to ground in a first position for a low level "a" and to a first voltage level V1 in a second position in a high level "b". Miyazaki further discloses a switch SW2 for connecting the other end of the capacitor C4 to a fifth voltage level V5 in a first position for a low level "a" and to a second voltage level V2 in a second position for a high level "b". In addition, Miyazaki discloses a switch SW1 for connecting one end of a capacitor C3 to a fourth voltage level V4 in a first position for a low level "a" and to a third voltage level V3 in a second position in a high level "b".

Miyazaki fails to teach or suggest a liquid crystal display driver that includes a first switch for connecting one end of a second capacitor in a first position of the first switch to a first output terminal and in a second position of the first switch to a fifth output terminal in response to a driving polarity signal, as claimed in claims 1-9 and 10-17. Instead, in Miyazaki, the switch SW3 connects one end of capacitor C4 to ground in a first position for the low level "a" and to the first voltage level V1 in a second position in the high level "b". The SW3 switch in Miyazaki switches between ground in a first position and the first voltage level V1 in a second position, rather than between a first output terminal in a first position and a fifth output terminal in a second position, as claimed in claims 1-9 and 10-17.

Miyazaki further fails to teach or suggest a liquid crystal display driver that includes a second switch for connecting the other end of the second capacitor in a first position of the second switch to a second output terminal and in a second position of the second switch to a ground voltage in response to a driving polarity signal, as claimed in claims 1-9 and 10-17. Instead, in Miyazaki, the switch SW2 connects the other end of the capacitor C4 to the fifth voltage level V5 in a first position for the low level "a" and to the second voltage level V2 in a second position for the high level "b". The SW2 switch in Miyazaki switches between fifth voltage V5 in a first position and the second voltage level V2 in a second position, rather than between a second output terminal in a first position and a ground voltage in a second position as

claimed in claims 1-9 and 10-17.

Miyazaki further fails to teach or suggest a liquid crystal display driver that includes a third switch connecting one end of a third capacitor in a first position of the third switch to the second output terminal and in a second position of the third switch to a fourth output terminal in response to a driving polarity signal, as claimed in claims 1-9 and 10-17. Instead, in Miyazaki, the switch SW1 connects one end of the capacitor C3 to the fourth voltage level V4 in a first position for the low level "a" and to the third voltage level V3 in a second position in the high level "b". The SW1 switch in Miyazaki switches between the fourth voltage V4 in a first position and the third voltage level V3 in a second position, rather than between a second output terminal in a first position and a fourth output terminal in a second position as claimed in claims 1-9 and 10-17.

Miyazaki further fails to teach or suggest a liquid crystal display driver that includes a fourth switch connecting the other end of a third capacitor in a first position of the fourth switch to a third output terminal and in a second position of the fourth switch to a fifth output terminal in response to a driving polarity signal, as claimed in claims 1-9 and 10-17. Instead, Miyazaki in no way teaches a fourth switch having a first and second position. Further, none of the switches SW1, SW2 or SW3 connect either of the capacitors C3 or C4 in a first position to the third voltage level V3 and in a second position to the fifth voltage level V5.

Miyazaki further fails to teach or suggest a method for stabilizing driving voltage levels in a liquid crystal display driver that includes, when a driving polarity signal is in a first logic state, connecting one end of a second capacitor to a fifth output terminal by a first switch in a first position of the first switch, connecting the other end of the second capacitor to a ground voltage by a second switch in a first position of the second switch, connecting one end of a third capacitor to a fourth output terminal by a third switch in a first position of the third switch, and connecting the other end of the third capacitor to a fifth output terminal by a fourth switch in a first position of the third switch, as claimed in claims 18-20. Instead, in Miyazaki, in a low level "a" one end of the capacitor C4 is connected to the fifth voltage level V5 by the switch SW2 in a first position, the other end of the capacitor C4 is connected to the ground voltage by switch SW3 in a first position, one end of the third capacitor C3 is connected to the fourth voltage level V4 by switch SW1 in a first position, and the other end of capacitor C3 is connected to the fifth voltage

level V5 by the switch SW2 in a second position. Therefore, the other end of the third capacitor is not connected to the fifth output terminal by a fourth switch in a first position as claimed in claims 18-20. Instead, in Miyazaki, the capacitor C3 is connected to the fifth output terminal by the switch SW2, the first switch, in a second position.

Miyazaki further fails to teach or suggest a method for stabilizing driving voltage levels in a liquid crystal display driver that includes, when the driving polarity signal is in a second logic state, connecting one end of the second capacitor to the first output terminal by the first switch in a second position of the first switch, connecting the other end of the second capacitor to the second output terminal by the second switch in a second position of the second switch, connecting one end of the third capacitor to the second output terminal by the third switch in a second position of the third switch, and connecting the other end of the third capacitor to the third output terminal by the fourth switch in a second position of the fourth switch. Instead, in Miyazaki, in a high level "b", one end of the capacitor C4 is connected to the first voltage level V1 by switch SW3 in a second position, the other end of the capacitor C4 is connected to the second voltage level V2 by the switch SW2 in a second position, one end of the capacitor C3 is connected to the second voltage level V2 by the switch SW2 in a second position, and the other end of the capacitor C3 is connected to the third voltage level V3 by the switch SW1 in a second position. Therefore, in Miyazaki, the one end of the second capacitor C4 is connected to the second voltage level by switch SW2 in a second position and one end of the capacitor C3 is connected to the second voltage level by switch SW2 in a second position. Thus, Miyazaki only discloses three switches. The Miyazaki switch SW2 is used as both the second and the third switch.

Miyazaki fails to teach or suggest elements of the invention set forth in claims 1-9, 10-17, 18-20. Therefore, it is believed that the claims are allowable over the cited reference, and reconsideration of the rejections of claims 1-20 under 35 U.S.C. 102(e) as being anticipated by Miyazaki, is respectfully requested.

In view of the amendments to the claims and the foregoing remarks, it is believed that all claims pending in the application are in condition for allowance, and such allowance is respectfully solicited. If a telephone conference will expedite prosecution of the application, the Examiner is invited to telephone the undersigned.

Respectfully submitted,

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